

## Federal Energy Management Program

### Funding Profile by Subprogram

(dollars in thousands)

	FY 2008 Current Appropriation	FY 2009 Original Appropriation	FY 2010 Request
Federal Energy Management Program			
Project Financing	8,606	8,000	12,072
Technical Guidance and Assistance	8,153	4,000	8,000
Planning, Reporting and Evaluation	3,059	2,000	3,000
Federal Fleet	0	2,000	3,000
DOE Specific Investments	0	6,000	6,200
Total, Federal Energy Management Program	19,818	22,000	32,272

#### Public Law Authorizations:

P.L. 94-163, "Energy Policy and Conservation Act" (EPCA) (1975)  
P.L. 94-385, "Energy Conservation and Production Act" (ECPA) (1976)  
P.L. 95-91, "DOE Organization Act" (1977)  
P.L. 95-619, "National Energy Conservation Policy Act" (NECPA) (1978)  
P.L. 100-615, "Federal Energy Management Improvement Act" (1988)  
P.L. 102-486, "Energy Policy Act" (1992)  
P.L. 109-58, "Energy Policy Act of 2005" (2005)  
P.L. 110-140, "Energy Independence and Security Act of 2007" (2007)

#### Mission

The Federal Energy Management Program (FEMP) facilitates the Federal Government's implementation of sound, cost effective energy management and investment practices to enhance the Nation's energy security and environmental stewardship. By increasing its use of energy efficiency and renewable energy, the Federal sector, leading by example, will reduce its greenhouse gas (GHG) emissions and will meet more of its energy requirements from clean and secure sources.

#### Benefits

FEMP program activities, supporting Federal agencies, would result in carbon emissions reductions near 50 million metrics tons of CO<sub>2</sub> by 2030 and nearly twice that by 2050. FEMP's activities will contribute to reducing the energy intensity at Federal facilities, lowering their energy bills and providing environmental benefits.

FEMP will achieve these benefits by facilitating the use of alternative financing mechanisms for Federal agencies that include energy saving performance contracts (ESPCs), utility energy service contracts (UESCs), power purchase agreements and enhanced use leases. In addition, FEMP will accelerate deployment of DOE energy efficiency and renewables technology to the Federal Government, provide technical assistance to Federal agencies, impart guidance on Federal vehicle fleet activities and report and evaluate agency progress each year. The program facilitates the award of Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs) for multiple Federal

agencies. These contracts between Federal agencies and the private sector fund energy efficiency improvements through the use of guaranteed energy savings on future energy bills. FEMP provides technical guidance and assistance to all Federal agencies and reports to Congress on Federal energy efficiency, renewable electric power and agency compliance with relevant public law and Executive Order requirements. For DOE, FEMP promotes internal energy management policies and planning efforts following DOE Order 430.2b which will put the Department in the forefront of implementing Federal best practices in the areas of environmental, energy, and transportation management.

FEMP directly supports the 22 Federal Agencies that report annual energy consumption to DOE and the OMB and assists OMB in assessing their performance. FEMP collaborates with agency leadership, energy and facility managers from other Federal agencies, and state and industry partners to identify key opportunities for enhancing energy efficiency and the use of renewable energy at Federal facilities. At DOE, FEMP helps program offices develop energy performance plans with their respective “landlord” sites in order to achieve energy management goals and measure progress. FEMP facilitates regular meetings among Federal agencies and industry partners; these include the Federal Interagency Energy Management Task Force, Interagency Sustainable Working Group, and the Federal Utility Partners Working Group.

The proposed FY 2010 Budget investments complement funds provided by the Recovery Act that enhance and accelerate FEMP service functions to the Federal Government, expand and enhance FEMP’s data collection and project tracking activity and develop an energy use, GHG accounting protocol and tool set for Federal agencies. To enable decision makers and the public to follow performance and plans, the program will post its progress in these planned activity areas at: <http://www.energy.gov/recovery/index.htm>.

FEMP activities provide substantial Climate Change , Energy Security, and Economic benefits. By providing needed interagency coordination, technical expertise, training, financing resources and contracting support, FEMP helps agencies make cost-effective investments in energy efficiency and renewable energy technologies at Federal facilities which result in strategic benefits in:

#### Climate Change

Estimated CO<sub>2</sub> reductions near 50 million metrics tons by 2030 and twice that by 2050.

#### Energy Security

By promoting the use of alternative fuel in the fleets of Federal agencies, the Federal Fleet subprogram decreases our Nation’s dependence on foreign oil, enhancing the Nation’s energy security; and

Support private sector development of alternative fuel stations at Federal sites and demonstrate opportunities for petroleum displacement to increase alternative fuel use and its fueling infrastructure.

#### Economic Impact

FEMP facilitated investments in energy efficiency and renewable energy also increase our Nation’s energy productivity, increase “green sector” jobs as well as help the economy grow; and

Estimated economic benefits show the potential to reduce cumulative net consumer expenditures by more than \$20 billion by 2030 and nearly \$40 billion by 2050.

The benefit tables below shows the preliminary strategic estimated benefits from 2015 through 2050 and related metrics that would result from realization of the program’s goals. These benefits are achieved by assisting Federal agencies through ESPC and UESC program support, accelerating deployment of DOE energy efficiency and renewables technology to the Federal government, technical assistance to Federal

agencies, guidance on Federal vehicle fleet activities, and reporting and evaluating agency progress annually on energy and transportation.

The program goal case is modeled along with a “baseline” case in which no DOE R&D exists. The baseline case is intended to represent the future without the effect of FEMP, and is identical for all DOE applied energy R&D programs, thereby ensuring that all program benefits are estimated using the same assumptions for external factors such as economic growth, energy prices, and levels of energy demand. The expected outcome benefits are calculated using the same fundamental methodology across EERE and across all of DOE’s applied energy R&D programs, and the metrics by which expected outcome benefits are measured are identical. This standardization of method and metrics has been undertaken as part of DOE’s efforts to make all program stated benefits comparable.

Prospective benefits are calculated as the arithmetic difference between the baseline case and the program goal case, and the resulting economic, environmental and security benefits attributed to the program’s activities. This approach of calculating the benefits as an incremental improvement to the baseline helps ensure that improvements in FEMP activities that would occur in the absence of the program are not counted as part of the program’s benefits. In addition to technology and process advances due to the program’s activities, energy market policies, such as state and Federal tax policies, facilitate the development and deployment of clean energy technologies. The expected impacts of current legislated policies in the baseline case are included so that the expected benefits calculated reflect as much as possible the effects of activities funded by the program.

The benefits are generated by modeling both the program goal and baseline cases within two energy-economy models: NEMS-GPRA10 for benefits through 2030, and MARKAL-GPRA10 for benefits through 2050. The full list of modeled benefits appears below.

**Primary Metrics for FY 2010 Budget Request**  
(Incorporates Approximate Impacts of EISA 2007)

	Metric <sup>1</sup>	Model	Year			
			2015	2020	2030	2050
Energy Security	Oil Imports Reduction, cumulative <sup>2</sup> (Bil bbl)	NEMS	ns	ns	ns	N/A
		MARKAL	ns	ns	ns	ns
	Natural Gas Imports Reduction, cumulative (Tcf)	NEMS	NA	NA	NA	N/A
		MARKAL	0.0	0.1	0.2	0.2
	Reduction in Share of Highway Fuel Demand Derived from Crude Oil <sup>3</sup> (%)	NEMS	ns	ns	ns	N/A
		MARKAL	ns	ns	ns	ns
Environmental Impacts	CO <sub>2</sub> Emissions Reduction, cumulative (Mil mtCO <sub>2</sub> )	NEMS	4	16	50	N/A
		MARKAL	8	18	48	107
	SO <sub>2</sub> Allowance Price Reduction <sup>4</sup> (\$/ton)	NEMS	NA	NA	NA	N/A
		MARKAL	N/A	N/A	N/A	N/A
	NO <sub>x</sub> Allowance Price Reduction (\$/ton)	NEMS	NA	NA	NA	N/A
		MARKAL	N/A	N/A	N/A	N/A
	Hg Allowance Price Reduction (thousand \$/lb)	NEMS	NA	NA	NA	N/A
		MARKAL	N/A	N/A	N/A	N/A
Economic Impacts	Consumer Savings, cumulative <sup>5</sup> (Bil \$)	NEMS	1	2	6	N/A
		MARKAL	6	12	23	37
	Electric Power Industry Savings, cumulative (Bil \$)	NEMS	1	1	3	N/A
		MARKAL	6	10	12	17
	Household Energy Expenditures Reduction (\$/household/yr)	NEMS	ns	ns	ns	N/A
		MARKAL	1	1	1	3

1. “Reductions” and “savings” are calculated as the difference between results from the baseline case (i.e. no DOE technology) and the technology case (i.e. all DOE technology R&D programs are successful).

2. All cumulative metrics are based on results beginning in 2010.

3. Metric includes oil-derived fuel use by light-duty vehicles, commercial light trucks and freight trucks; the metric excludes buses. Reported oil use is adjusted to exclude ethanol, biodiesel and CTL.

4. All monetary metrics are in 2006\$.

5. Cumulative monetary metrics are in 2006\$ that are discounted to 2010 using a 3% discount rate.

ns - Not significant

NA - Not yet available

N/A - Not applicable

**Secondary Metrics for FY 2010 Budget Request**  
(Incorporates Approximate Impacts of EISA 2007)

	Metric <sup>1</sup>	Model	Year			
			2015	2020	2030	2050
Energy Security	Oil Imports Reduction, annual (Mbpd)	NEMS	ns	ns	ns	N/A
		MARKAL	ns	ns	ns	ns
	Natural Gas Imports Reduction, annual (Tcf)	NEMS	NA	NA	NA	N/A
		MARKAL	0.01	0.01	0.01	ns
	MPG Improvement <sup>2</sup> (%)	NEMS	ns	ns	ns	N/A
		MARKAL	ns	ns	ns	ns
Environmental Impacts	CO <sub>2</sub> Intensity Reduction of US Economy (Kg CO <sub>2</sub> /\$GDP)	NEMS	NA	NA	NA	N/A
		MARKAL	ns	ns	ns	ns
	CO <sub>2</sub> Intensity Reduction of US Power Sector <sup>3</sup> (Kg CO <sub>2</sub> /kWh)	NEMS	NA	NA	NA	N/A
		MARKAL	ns	ns	ns	ns
	CO <sub>2</sub> Intensity Reduction of US Transportation Sector <sup>4</sup> (Kg CO <sub>2</sub> /mile)	NEMS	NA	NA	NA	N/A
		MARKAL	ns	ns	ns	ns
	Consumer Savings, annual <sup>5</sup> (Bil \$)	NEMS	NA	NA	NA	N/A
		MARKAL	2	2	2	2
Economic Impacts	Electric Power Industry Savings, annual (Bil \$)	NEMS	0.2	0.2	0.3	N/A
		MARKAL	2.2	0.3	0.3	0.4
	Energy Intensity of US Economy (energy/\$GDP)	NEMS	NA	NA	NA	N/A
		MARKAL	0.002	0.003	0.002	0.001
	Net Energy System Cost Reduction, cumulative (Bil \$)	NEMS	ns	ns	ns	N/A
		MARKAL	16	32	50	72
1. “Reductions” and “savings” are calculated as the difference between results from the baseline case (i.e. no DOE technology) and the technology case (i.e. all DOE technology R&D programs are successful).						
2. All cumulative metrics are based on results beginning in 2010.						
3. Metric includes oil-derived fuel use by light-duty vehicles, commercial light trucks and freight trucks; the metric excludes buses. Reported oil use is adjusted to exclude ethanol, biodiesel and CTL.						
4. All monetary metrics are in 2006\$.						
5. Cumulative monetary metrics are in 2006\$ that are discounted to 2010 using a 3% discount rate.						
ns - Not significant						
NA - Not yet available						
N/A - Not applicable						

The following external factors could affect FEMP's ability to achieve its strategic goal:

- Mission changes at Federal sites that would change building usage;
- Availability of energy management personnel at Federal sites; and
- Energy price increases that could help focus attention on energy conservation.

**Contribution to the Secretary's Priorities**

The FEMP Program contributes to several of the Secretary's priorities as enumerated below. The principal focus area is Priority 2, Economic Prosperity.

Priority 1: Clean Energy — Change the landscape of energy demand and supply

FEMP activities support the Clean Energy priority supporting energy efficiency deployment to decrease energy use in the Federal sector by providing needed interagency coordination, technical expertise, training, financing resources and contracting support, FEMP helps agencies make cost-effective investments in energy efficiency and renewable energy technologies at Federal facilities through reducing energy demand and deploying low-carbon energy technologies. Also, FEMP supports the priority of Lower GHG Emissions through facilitating deployment pathways for clean energy.

Priority 2: Economic Prosperity — Create millions of green jobs and increase competitiveness

FEMP's priorities are best matched with the Secretarial priority of improving our Nation's economic prosperity through reducing energy demand and deploying low-carbon energy technologies at Federal agencies. FEMP enables the Federal Government to meet relevant energy, water, and transportation goals of EISA 2007, EPAct 2005, and Executive Orders by providing needed interagency coordination, technical expertise, guidance, training, financing resources and contract program support.

Priority 5: Lower GHG Emissions — Position U.S. to lead on climate change policy, technology, and science

FEMP supports the priority of Lower GHG emissions through facilitating deployment pathways for clean energy through its activities across the Federal Government that help institute energy efficient, low GHG emission technologies, assistance in planning and instituting ESPC-UESC program support, energy conservation measures (ECM), and training. FEMP facilitated investments in energy efficiency and renewable energy increase our Nation's energy productivity, increase "green sector" jobs and help the economy grow.

#### **Contribution to GPRA Unit Program Goal 1.4.07.00 (Federal Energy Management Program)**

FEMP contributes to the Program Goal by assisting Federal agencies through ESPC-UESC program support, technical guidance and assistance, guidance on Federal vehicle fleet activities and reporting and evaluating agency progress each year. FEMP's assistance will help agencies reach the goals set forth by the EPAct 2005 and E.O. 13423, and EISA 2007. Current government-wide goals include:

- Improve energy efficiency and reduce GHG emissions of the agency, through reduction of energy intensity by 3 percent annually through the end of fiscal year 2015, or 30 percent by the end of fiscal year 2015, relative to the baseline of the agency's energy use in fiscal year 2003;
- Ensure that at least 3 percent of Federal electricity consumption is generated from renewable sources in the years FY 2007 through FY 2009; 5 percent in the years FY 2010 through FY 2012; and 7.5 percent in FY 2013 and each fiscal year thereafter.
- Ensure that at least half of the statutorily required renewable energy consumed by the agency in a fiscal year comes from new renewable sources (after 1999), and to the extent feasible, the agency implements renewable energy generation projects on agency property for agency use;
- Reduce water consumption intensity by 2 percent annually or 16 percent by the end of the FY 2015 as compared to the FY 2007 base year.
- Ensure that, if the agency operates a fleet of at least 20 motor vehicles, the agency, relative to agency baselines for fiscal year 2005, (1) reduces the fleet's total consumption of petroleum products by 2 percent annually through the end of fiscal year 2015, (2) increases the total fuel consumption that is non-petroleum-based by 10 percent annually, and (3) uses plug-in hybrid electric vehicles (PHEVs) when PHEVs are commercially available at a cost reasonably comparable, on the basis of life-cycle cost, to non-PHEVs.

## Means and Strategies

The FEMP Program will use various means and strategies to achieve its GPRA Unit program goals as described below. “Means” include operational processes, resources, information, and the development of technologies, and “strategies” include program, policy, management and legislative initiatives and approaches.

FEMP will implement the following means:

- Develop policy and guidance to achieve Executive Order and legislative requirements;
- Facilitate use of ESPC-UESC programs within Federal agencies;
- Evaluate the potential of new, innovative technologies for use in the Federal sector;
- Report progress with respect to energy conservation at the Federal agencies;
- Provide oversight and approval of DOE utility contracts and support utility rate interventions; and
- Provide analysis and reporting on Federal vehicle fleet management activities to identify issues and problem areas that present challenges. FEMP works with agencies to develop strategies for addressing those issues and shares the lessons learned with other vehicle fleets.

FEMP will implement the following strategies:

- Identify high impact opportunities across Federal agencies for energy efficiency improvements and to increase the use of renewable energy;
- Identify opportunities for widespread use of energy efficient and renewable energy technologies in the Federal sector and deploy these technologies through coordinated procurement, alternative financing, or other means; and
- Recommend strategies for improved energy security for critical needs at Federal facilities.

These strategies will result in significant cost and/or energy savings and improved energy security at Federal facilities.

## Validation and Verification

To validate and verify programs, FEMP conducts ongoing internal reviews of its program activities each year. In addition, external peer reviews are conducted. FEMP provides a report to Congress every year on the progress of Federal agencies on reaching their energy efficiency and renewable energy goals.

**Data Sources:** Agencies submit annual reports to DOE documenting energy use in buildings, cost, gross square footage and exempt facilities and FEMP compiles this information in a report to Congress each year. For the Federal vehicle fleet activity, agencies enter fleet and fuel use data into the Federal Automotive Statistical Tool (FAST) database.

**Baselines:** The baseline for the energy efficiency goal for Federal facilities of EAct 2005, the E.O. 13423 and the Transformation Energy Action Management (TEAM) initiative is the FY 2003 energy intensity of standard and energy intensive Federal buildings – 127,015 Btu per square foot (for the entire Government). As established by E.O. 13423 (which also applies to the DOE Order 430.2b), the baseline for the Federal vehicle fleet was the amount of Federal petroleum usage in 2005 – 420 million gallons of gasoline equivalent.

Frequency:	Annual.
Evaluation:	<p>In carrying out the program's mission, FEMP uses several forms of evaluation to assess progress and to promote program improvement:</p> <ul style="list-style-type: none"> <li>▪ Peer review by independent outside experts of both the program and subprogram portfolios;</li> <li>▪ Annual internal program reviews.</li> <li>▪ Quarterly and annual assessment of program and management results based performance through Joule (the DOE quarterly performance progress review of budget targets); and</li> <li>▪ Annual review of methods, and recomputation of potential benefits for the Government Performance and Results Act (GPRA).</li> </ul>
Data Storage:	FEMP maintains a database of reported information. Agencies maintain their own, more detailed data.
Verification:	External audits are conducted each year. Reporting anomalies are identified and resolved during the annual reporting cycle.



## Annual Performance Results and Targets

FY 2005 Results	FY 2006 Results	FY 2007 Results	FY 2008 Targets	FY 2009 Targets	FY 2010 Targets
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GPRA Unit Program Goal 1.4.07.00 (/FEMP)

Project Financing/Technical Guidance and Assistance/Departmental Energy Management

Complete ESPC and UESC contract awards, fund DOE retrofit projects and provide technical assistance that will result in lifecycle Btu savings of 17.1 trillion. [MET]

Estimated lifecycle energy savings expected in Federal agencies' facilities as a result of FEMP activities are 20.2 trillion Btus (TBtu). FEMP's facilitation activities include alternative financing, technical assistance, and directly funded energy efficiency projects within the Department. These savings should result in about a 0.4 percent annual reduction in energy intensity. [MET]

Estimated lifecycle energy savings expected in Federal agencies' facilities as a result of FEMP activities are 34.4 trillion Btus (TBtu). FEMP's facilitation activities include alternative financing, technical assistance, and directly funded energy efficiency projects within the Department. These savings should result in about a 0.5 percent annual reduction in energy intensity.

Estimated lifecycle energy savings expected in Federal agencies' facilities as a result of FEMP activities are 50.0 trillion Btus (TBtu). FEMP's facilitation activities include alternative financing and technical assistance. These savings should result in about a 0.7 percent annual reduction in energy intensity.

Project Financing

Will achieve between \$80 and \$120 million in private sector investment through Super ESPCs which will result in about a 0.2 percent annual reduction in energy intensity. These projects are cost-effective resulting in a positive net present value gain for the tax payer. [NOT MET. MET reduced goal of \$60 million -- \$73 million in private sector investment].

Will achieve between \$80 and \$120 million in private sector investment through Super ESPCs and/or UESCs which we expect to result in about a 0.2 percent annual reduction in energy intensity. These projects are cost-effective resulting in a positive net present value gain for the tax payer. [MET]

FY 2005 Results	FY 2006 Results	FY 2007 Results	FY 2008 Targets	FY 2009 Targets	FY 2010 Targets
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Technical Guidance and Assistance

Will provide technical and design assistance for 60 Federal projects which include energy efficiency, renewable energy, O&M, Distributed Energy Resources, Combined Heat and Power, SAVEnergy Audits, ALERTS and water conservation projects. These projects are cost-effective, because the technologies applied have been shown to be cost-effective by the supporting EERE programs. [MET: 73 energy efficiency and renewable projects]

Train 4,000 Federal energy attendees in energy management best practices supporting National Energy Policy education goals. [MET: 4844 personnel trained]

Departmental Energy Management

Complete the selection for funding of 4 to 13 energy efficiency projects through a competitive selection process that chooses those projects with the greatest return on investment. [MET: 13 projects selected.]

Provide technical and design assistance for 27 Federal projects (e.g., energy efficiency, renewable energy, Operations and Maintenance, Distributed Energy Resources, Combined Heat and Power, Assessment of Load and Energy Reduction Techniques (ALERTS) and water conservation projects) which are expected to result in energy savings of about 60 billion Btus. [MET]

Complete the selection for funding of 3 energy retrofit projects that will provide the required dollar savings to achieve a 20 percent return on the investment of the DEMP funding. These projects will save over 12 billion Btus per year. [MET]

FY 2005 Results	FY 2006 Results	FY 2007 Results	FY 2008 Targets	FY 2009 Targets	FY 2010 Targets
<u>Contribute proportionately to EERE's corporate goal of reducing corporate and program adjusted uncosted obligated balances to a range of 20-25 percent by reducing program annual adjusted uncosteds by 10 percent in 2005 relative to the FEMP/DEMP Program FY 2004 end of year adjusted uncosted baseline (\$11,266K) until the target range is met.</u> [NOT MET]	<u>Maintain total administrative overhead costs (defined as Program Direction and Program Support excluding earmarks) in relation to total program costs of less than 12 percent.</u> [MET]	<u>Maintain total administrative overhead costs (defined as Program Direction and Program Support excluding earmarks) in relation to total program costs of less than 12 percent.</u> [MET]	<u>Maintain administrative costs as a percent of total program costs less than 12 percent.</u> [MET]	<u>Maintain administrative costs as a percent of total program costs less than 12 percent.</u>	<u>Maintain administrative costs as a percent of total program costs less than 12 percent<sup>a</sup>.</u>

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<sup>a</sup> Administrative costs are comprised of Program Direction and elements of Program Support (Technology Advancement and Outreach; and Planning, Analysis and Evaluation), baseline and targets under development.

## Project Financing

### Funding Schedule by Activity

(dollars in thousands)

	FY 2008	FY 2009	FY 2010
Project Financing	8,606	8,000	12,072
Total, Project Financing	8,606	8,000	12,072

### Description

FEMP facilitates Federal agencies access to private sector financing to fund energy efficiency improvements through its Energy Savings Performance Contracts (ESPCs), public benefit funds, and Utility Energy Service Contracts (UESCs) program support. It provides guidance, documentation and individual project assistance to Federal agencies that utilize these programs which help develop and finance energy improvements at Federal facilities that are in need of significant energy system retrofits.

### Benefits

These programs for energy efficiency and renewable energy projects improve the energy efficiency of Federal facilities. Projects save energy at Federal facilities and are implemented with little or no upfront cost to the government. By providing a means for Federal agencies to utilize renewable energy and energy efficiency technologies, these programs help reduce GHG emissions associated with power usage at Federal facilities and promote the use of clean, secure alternatives to conventional technologies.

FEMP's goal is to facilitate energy investments through the ESPC and UESC programs that will result in lifecycle Btu savings of 30.1 trillion in FY 2010, which is equivalent to displacing the energy use of about 22,000 households over the lifetime of the investment.

### Detailed Justification

(dollars in thousands)

FY 2008	FY 2009	FY 2010
<b>8,606</b>	<b>8,000</b>	<b>12,072</b>

### Project Financing

Federal agency use of ESPCs was authorized by Congress to provide an alternative to direct appropriations for funding energy-efficient improvements in Federal facilities. Under ESPCs and UESCs, agencies can take advantage of private sector expertise with little or no upfront cost to the Government. The Government pays back the Energy Savings Performance Company (ESCO) through energy cost savings over the life of the projects. ESPC and UESC projects can include energy-efficient improvements, renewable energy technologies, alternative fuel (biomass/landfill), combined heat and power, advanced metering, power management and reduced water consumption technologies.

DOE is responsible for the management, oversight and reporting of a government-wide multiple award ESPC available to all Federal agencies. FEMP will continue to make improvements in ESPC project facilitation, outreach, financing, training, reporting, measurement and verification, and competition. FEMP will continue to add services that address the full lifecycle of FEMP facilitated alternative finance to include a determination of whether the pricing of energy conservation measures

(dollars in thousands)

FY 2008	FY 2009	FY 2010
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by an ESCO or other third parties is fair and reasonable. Project facilitators will continue to provide ESPC and UESC assistance, including identifying and screening projects and evaluating proposals. They will provide technical and contracting expertise for issues such as interest rates, competitive financing, and utility rates to support the negotiation process.

In FY 2010, FEMP will support a greater use of ESPCs by Federal agencies with a larger, more coordinated team of project facilitators, Federal financial specialists, and other technical expertise. Increased support will be provided for contracts that are awarded but need additional assistance to enforce the terms of the ESPC contract over its lifetime in areas such as providing expert witnesses in measurement and verification.

Analytical activities will continue in support of reporting requirements for project metrics, milestones and program plans to implement improvements in the ESPC and UESC activities. Activities supporting the use of state-provided public benefit funds for Federal facilities and the use of power purchase agreements will continue.

<b>Total, Project Financing</b>	<b>8,606</b>	<b>8,000</b>	<b>12,072</b>
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#### Explanation of Funding Changes

FY 2010 vs. FY 2009 (\$000)
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#### Project Financing

To help meet the more aggressive goals of the National Energy Conservation Policy Act (NECPA) as amended by the Energy Independence and Security Act (EISA 2007), increased funding will support a greater use of ESPCs by Federal agencies with a larger, more coordinated team of project facilitators, Federal financial specialists, and other technical expertise. Increased funding will support services that address the full lifecycle of FEMP facilitated transactions. Regarding applicable public law and E.O., these services include assessments of Federal agency compliance needs and support for agency planning to meet those needs. In addition, these services include follow-up activities of the project financing process such as project reviews, client feedback and assistance with measurement and verification.

+4,072

#### Total Funding Change, Project Financing

+4,072

## Technical Guidance and Assistance Funding Schedule by Activity

(dollars in thousands)

	FY 2008	FY 2009	FY 2010
Technical Guidance and Assistance			
Direct Technical Assistance	8,153	4,000	8,000
Total, Technical Guidance and Assistance	8,153	4,000	8,000

### Description

Technical Guidance and Assistance helps Federal agencies take advantage of innovative technologies, tools, and best practices in the areas of energy efficiency, renewable energy and water conservation. These activities support agency development of new and existing high performance buildings that are moving toward the goal of consuming no more energy than the energy produced at the site (a net zero energy building).

In FY 2010, FEMP will expand its assistance to Federal agencies in the procurement of energy efficient products, updating the product specifications annually and providing dedicated training and outreach to Federal procurement officials. Additional assistance will be provided to help other agencies develop more aggressive and comprehensive planning and internal processes to reduce their energy use and to achieve Federal water consumption goals.

### Benefits

Technical Guidance and Assistance supports FEMP's mission by helping agencies implement projects and practices that reduce energy bills, reduce GHG emissions, and promote the use of water conservation, energy efficiency and renewable energy. FEMP's technical assistance on energy efficiency and renewable technologies results in accelerated acceptance of these technologies in the Federal sector.

FEMP's goal is to provide technical assistance that will result in lifecycle Btu savings of 11.1 trillion, which is equivalent to displacing the energy use of about 8,000 households over the lifetime of the investment.

## Detailed Justification

(dollars in thousands)

FY 2008	FY 2009	FY 2010
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### Direct Technical Assistance

8,153      4,000      8,000

FEMP's broad range of assistance includes analytical support to Federal agencies from its laboratories, new technology deployment, development of Federal agency efficiency standards, specification of products for agency procurement, energy assessments and assistance to help other agencies develop and comprehensive planning and internal processes to reduce their energy use and to achieve the water consumption.

Technology areas include lighting, renewable energy and Combined Heat and Power (CHP) technologies. The EAct 2005 and EISA 2007 establish FEMP's responsibility for carrying out a number of activities, including developing product specifications and issuing regulations on metering, new construction, and other energy-related building topics. FEMP will continue to update its specifications for highly energy efficient products and provide them to the General Services Administration and Defense Logistics Agency as required by the Federal purchase requirement set forth in the EAct 2005, as well as, provide Program-specific technical training and information.

### Total, Technical Guidance and Assistance

8,153      4,000      8,000

## Explanation of Funding Changes

FY 2010 vs. FY 2009 (\$000)
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### Technical Guidance and Assistance

Increased funding will support expanded assistance to Federal agencies in the procurement of energy efficient products by updating the product specifications annually and providing dedicated training and outreach to Federal procurement officials. FEMP will also expand assistance to help other agencies develop more aggressive and comprehensive planning and internal processes to reduce energy use and achieve Federal water consumption goals.

+4,000

### Total Funding Change, Technical Guidance and Assistance

+4,000

## Planning, Reporting and Evaluation Funding Schedule by Activity

	(dollars in thousands)		
	FY 2008	FY 2009	FY 2010
Planning, Reporting and Evaluation	3,059	2,000	3,000
Total, Planning, Reporting and Evaluation	3,059	2,000	3,000

### Description

NECPA (as amended by EISA 2007) requires the Department to collect, verify and report on progress by the Federal agencies (including the DOE) toward the goals that address energy efficiency in facilities. FEMP will collect and publish data for the Annual Report to Congress and respond to inquiries to help ensure accuracy in reporting and analysis of trends. Through its awards program, FEMP recognizes energy efficiency and renewable energy champions at Federal agencies.

### Benefits

Through planning, reporting and evaluation, FEMP meets the reporting requirements set forth by Congress and Executive Orders. Tracking, reporting and evaluating are necessary to guide the planning process by assessing the lessons and effectiveness of the Government's efforts to achieve the greatest possible reductions in energy costs, improvements in air quality, and to promote water conservation, energy efficiency and renewable energy technologies.

### Detailed Justification

	(dollars in thousands)		
	FY 2008	FY 2009	FY 2010

<b>Planning, Reporting and Evaluation</b>	<b>3,059</b>	<b>2,000</b>	<b>3,000</b>
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Data collection, verification and reporting continue to be centralized for the Federal agencies at FEMP with the assistance of technical experts for preparing analysis and verification of data. This also includes maintaining DOE facilities information and developing annual plans and reports.

Information will be made available on Federal progress toward public law and E.O. goals on the FEMP website and technical updates to web-based materials will continue for the Federal sector.

FEMP activities will include strategic communications and marketing, improved analysis of investments and financing, training for FEMP personnel and critical contractor support staff and support for the GovEnergy conference.

Technical analysis will continue as required to respond to analytical reporting requirements, multi-year planning and peer reviews. Program assistance will continue in preparing and updating the Federal sector plans for meeting the public law and E.O. goals, as well as recognizing progress

Energy Efficiency and Renewable Energy/  
Federal Energy Management Program/  
Planning, Reporting and Evaluation

FY 2010 Congressional Budget



(dollars in thousands)

FY 2008	FY 2009	FY 2010
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through the Presidential and Federal awards programs.

<b>Total, Planning, Reporting and Evaluation</b>	<b>3,059</b>	<b>2,000</b>	<b>3,000</b>
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### Explanation of Funding Changes

FY 2010 vs. FY 2009 (\$000)
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#### Planning, Reporting and Evaluation

Increased funding will support the development of a strategic communications and marketing function with an expanded range of products tailored by customer and market needs; improved analysis of investments and financing; and the expansion of training for FEMP personnel and critical contractor support staff. In addition, the GovEnergy conference will be expanded with additional training tracks, a high profile media presence and an international component.

+1,000

<b>Total Funding Change, Planning, Reporting and Evaluation</b>	<b>+1,000</b>
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## Federal Fleet

### Funding Schedule by Activity

(dollars in thousands)

	FY 2008	FY 2009	FY 2010
Federal Fleet	0	2,000	3,000
Total, Federal Fleet	0	2,000	3,000

### Description

Federal vehicle fleet activities include the required tracking and reporting activities for the Federal fleet that were previously covered under Planning, Reporting and Evaluation. Additional activities include the promotion of the increased use of alternative fuel for Federal Agency sites, Federal vehicle fleet activities support the integration of buildings, electricity and electric vehicles (EVs) or plug-in hybrid electric vehicles (PHEVs). FEMP will demonstrate opportunities for increased petroleum displacement to increase alternative fuel use and its fueling infrastructure.

### Benefits

By promoting the use of alternative fuel in the fleets of Federal agencies, this program decreases our Nation's dependence on oil, enhancing the Nation's energy security, reducing emissions of GHGs, and provides leadership and examples for other large fleet operations. These activities will support private sector development of alternative fuel stations at Federal sites and demonstrate opportunities for petroleum displacement to increase alternative fuel use and its fueling infrastructure. These activities support the Bioenergy Initiative, led by EERE's Office of Biomass.

### Detailed Justification

(dollars in thousands)

FY 2008	FY 2009	FY 2010
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<b>Federal Fleets</b>	<b>0</b>	<b>2,000</b>	<b>3,000</b>
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Activities will include aggregating alternative fuel vehicles (AFVs) to support private sector development of alternative fuel (AF) stations and demonstrating the potential for integration of buildings, electricity and EVs or PHEVs. FEMP will demonstrate opportunities for increased petroleum displacement to increase alternative fuel and its fueling infrastructure, use of electric vehicles, use of geographic analysis for maximization of use, and specifically issues related to use of renewable electricity generation, utility integration, time-of-day charging, and potential impacts on Federal facilities.

FEMP will continue reporting on and conducting analysis of the Federal vehicle fleet activities and to implement compliance measures in each agency's fleet activity. The Federal vehicle fleet activities provide guidance and support to each agency toward compliance with legislative and E.O. requirements to reduce dependence on foreign sources of oil.

(dollars in thousands)

FY 2008	FY 2009	FY 2010
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**Total, Federal Fleets**

**0                      2,000                      3,000**

**Explanation of Funding Changes**

FY 2010 vs. FY 2009 (\$000)
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**Federal Fleet**

Increased funding supports enhanced communications and outreach materials, fleet tool kits for fleet managers and procurement officials, further enhancements to the web-based FAST and analysis critical to deployment of alternative fuel infrastructure.

**+1,000**

**Total Funding Change, Federal Fleet**

**+1,000**

**DOE Specific Investments**  
**Funding Schedule by Activity**

(dollars in thousands)

	FY 2008	FY 2009	FY 2010
DOE Specific Investments	0	6,000	6,200
Total, DOE Specific Investments	0	6,000	6,200

**Description**

DOE Specific Investments includes activities designed to implement Federal environmental, energy, and transportation management goals at DOE sites. These activities support DOE Order 430.2b, which will put DOE in the forefront of implementing Federal best practice in the areas of environmental, energy, and transportation management. Since a core mission and responsibility of the DOE is to lead the Nation in promoting and utilizing the best available energy management technologies and practices, binding agreements will be set up throughout the DOE program offices in order to enable the agency to meet, exceed and lead in the implementation of Federal environmental, energy, and transportation management goals. FEMP efforts will include establishing an alternative fuel infrastructure for DOE vehicle fleets and furthering deployment of advanced energy efficiency, renewable energy and water technologies. As DOE makes further progress toward meeting its own goals, it will broaden its efforts to enable other Federal Agencies meet these goals by employing lessons learned from DOE's experience. These funds do not serve as a capital budget investment line item for Departmental infrastructure, but to allow FEMP to provide the best service possible and a strong coordination role for other DOE program offices making capital investments.

**Benefits**

The activities further the DOE's strategic goal of energy security by increasing the energy productivity and energy diversity and reducing the GHG emissions of energy use at the Department, while enhancing FEMP's ability to lead by example. These activities support the goal which calls for a reduction of energy intensity by 30 percent by the end of fiscal year 2015. In FY 2010, FEMP's goal is to provide assistance to DOE that will result in lifecycle Btu savings of 9.1 trillion which is equivalent to displacing the energy use of about 6,600 households over the lifetime of the investment.

## Detailed Justification

(dollars in thousands)

FY 2008	FY 2009	FY 2010
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**DOE Specific Investments** **0** **6,000** **6,200**

Activities include establishing alternative fuels infrastructure for DOE vehicle fleets; supporting use of ESPCs and UESCs at DOE facilities; providing technical guidance and assistance to DOE offices; establishing incentive awards; training DOE senior management and staff on E.O., EPAct 2005 and EISA 2007 compliance; establishing sustainable principles; identifying and deploying energy efficiency, water and renewable energy technologies; providing information and outreach; assisting with development and implementation of site energy and water plans; supporting ESPC and UESC projects, training, renewable power purchase agreements, project development and implementation assistance; and supporting deployment of smart meters on all DOE buildings.

FEMP will provide assistance to other DOE program offices to support the use of the ESPC-UESC programs, maximize direct purchases that facilitate new renewable energy projects, maximize use of DOE land for new renewable energy projects and incorporate renewable technologies into new construction where feasible.

<b>Total, DOE Specific Investments</b>	<b>0</b>	<b>6,000</b>	<b>6,200</b>
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## Explanation of Funding Changes

FY 2010 vs. FY 2009 (\$000)
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### DOE Specific Investments

Increased funding will support energy assessments of significant DOE buildings to help meet Federal energy and environmental requirements.

+200

<b>Total Funding Change, DOE Specific Investments</b>	<b>+200</b>
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